

REMARKS/ARGUMENTS

In the Office Action of November 5, 2009, claims 1, 2 and 8-12 are rejected. Additionally, claims 3-7 are withdrawn from further consideration. In response, new claims 13-16 have been added. Support for claims 13-16 is found in Applicant's specification at, for example, the paragraph between page 1, line 24 and page 2, line 5. Applicant hereby requests reconsideration of the application in view of the new claims and the below-provided remarks.

Election/Restriction

The Office Action states that claims 3-7 are withdrawn from further consideration pursuant to 37 C.F.R. 1.142(b), as being drawing to a nonelected invention. However, Applicant respectfully asserts that the restriction requirement is not proper pursuant to 37 C.F.R. 1.475(a). As such, Applicant respectfully requests that the restriction requirement be withdrawn. Consequently, claims 3-7 should not be withdrawn from further consideration. Applicant respectfully requests the Examination of claims 1-16, as a whole, continue.

In the Office Action dated July 9, 2009, the Examiner has required a restriction between subcombinations usable together, as explained in MPEP 806.05(d). However, chapter 800 of the MPEP is not applicable to the current application, which is an application entering the National Stage under 35 U.S.C. 371. MPEP 801 states the following:

“This chapter is **limited to** a discussion of the subject of restriction and double patenting under Title 35 of the United States Code and Title 37 of the Code of Federal Regulations as it relates to national applications filed under 35 U.S.C. 111(a). The discussion of unity of invention under the Patent Cooperation Treaty Articles and Rules as it is applied as an International Searching Authority, International Preliminary Examining Authority, and in applications entering the National Stage under 35 U.S.C. 371 as a Designated or Elected Office in the U.S. Patent and Trademark Office is covered in Chapter 1800” (emphasis added).

Consequently, the reasons for the restriction requirement, as set forth by the Examiner, are not applicable to the current application. As such, the restriction requirement is not proper.

Rules for unity of invention during the national stage are set forth in 37 C.F.R. 1.475(a), which states:

“An international and a national stage application shall relate to one invention only or to **a group of inventions so linked as to form a single general inventive concept** (“requirement of unity of invention”). Where a group of inventions is claimed in an application, the requirement of unity of invention shall be fulfilled only when there is a technical relationship among those inventions involving one or more of the same or corresponding special technical features. The expression “special technical features” shall mean those technical features that define a contribution which each of the claimed inventions, considered as a whole, makes over the prior art” (emphasis added).

Thus, 37 C.F.R. 1.475(a) allows for more than one invention in a national stage application as long as the inventions are **“linked as to form a single general inventive concept.”**

Applicant respectfully submits that the different inventions recited in claims 1-8 are linked as to form a single general inventive concept because there is a technical relationship among the claimed inventions involving one or more of the same or corresponding special technical features that define a contribution which each of the claimed inventions makes over the prior art. Thus, Applicant respectfully submits that there is unity of invention for the current application.

In light of the arguments presented, Applicant respectfully requests that the restriction requirement be withdrawn and that claims 3-7 not be withdrawn from further consideration. Applicant respectfully requests the Examination of claims 1-16, as a whole, continue.

Claim Rejections under 35 U.S.C. 102 and under 35 U.S.C. 103

Claims 1 and 8-12 are rejected under 35 U.S.C. 102(b) as allegedly being anticipated by Shen (U.S. Pat. Pub. No. 2004/0116087A1). Claim 2 is rejected under 35 U.S.C. 103(a) as allegedly being unpatentable over Shen in view of Durec (U.S. Pat. No. 6,144,846). However, Applicant respectfully submits that pending claims are neither anticipated by Shen nor unpatentable over Shen in view of Durec.

Independent Claim 1

Claim 1 recites in part that *“a division factor of the frequency divider and a ratio between the center frequency and the first frequency are determined by the one of at least two frequency bands”* (emphasis added), which is not disclosed in the cited reference of Shen. Thus, Applicant respectfully asserts that claim 1 is not anticipated by Shen.

A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference. *Verdegaal Bros. v. Union Oil of California*, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987).

Shen discloses that an RF communication receiver includes a tracking image rejection filter (79), a first local oscillator (87), a mixer (81), a frequency divider (89) and a second mixer (85). (See Fig. 3 and paragraph [0019] of Shen). The Office Action on page 3 suggests that the frequency divider (89) is equivalent to the “*frequency divider*” of claim 1. The Office Action on page 3 also suggests that paragraph [0019] of Shen discloses “how center frequency is vary with oscillator frequency through a frequency divider.”

However, Shen on paragraph [0019] discloses that in order for the tracking image rejection filter (79) to effective suppress image frequencies of a variable intermediate frequency, the center frequency of the tracking image rejection filter (79) should vary with the local oscillator (87). That is, paragraph [0019] of Shen merely discloses a relationship between the center frequency of the tracking image rejection filter (79) and the local oscillator (87).

In fact, Shen is silent as to the division factor of the frequency divider (89). Because Shen is silent as to the division factor of the frequency divider (89), Applicant respectfully asserts that Shen does not disclose that “a division factor of the frequency divider and a ratio between the center frequency and the first frequency are determined by the one of at least two frequency bands” (emphasis added), as recited in claim 1. Therefore, Applicant respectfully asserts that claim 1 is not anticipated by Shen.

Dependent Claims 2, 9 and 10

Claims 2, 9 and 10 depend from and incorporate all of the limitations of independent claim 1. Applicant respectfully asserts that claims 2, 9 and 10 are allowable at least based on an allowable claim 1.

Additionally, Applicant respectfully asserts that Shen does not disclose that “*the ratio between the center frequency and the first frequency is equal to $(N+1)/N$, wherein N is the division factor*” (emphasis added) or that “*the ratio between the center frequency and the first frequency is equal to $(N-1)/N$, wherein N is the division factor*” (emphasis added), as recited in claims 9 and 10. As described above,

Applicant respectfully asserts that Shen is silent as to the division factor of the frequency divider (89). Because Shen is silent as to the division factor of the frequency divider (89), Applicant respectfully asserts that Shen does not disclose the above-identified limitations of claims 9 and 10. Therefore, Applicant respectfully asserts that claims 9 and 10 are not anticipated by Shen.

Independent Claim 3

Claim 3 includes similar limitations to claim 1. Because of the similarities between claim 1 and claim 3, Applicant respectfully asserts that the remarks provided above with regard to claim 1 apply also to claim 3. Thus, Applicant respectfully asserts that claim 3 is not anticipated by Shen.

Independent Claim 4

Claim 4 includes similar limitations to claim 1. Because of the similarities between claim 1 and claim 4, Applicant respectfully asserts that the remarks provided above with regard to claim 1 apply also to claim 4. Thus, Applicant respectfully asserts that claim 4 is not anticipated by Shen.

Dependent Claims 5-7

Claims 5-7 depend from and incorporate all of the limitations of independent claim 4. Thus, Applicant respectfully asserts that claims 5-7 are allowable at least based on an allowable claim 4.

Independent Claim 8

Claim 8 includes similar limitations to claim 1. Because of the similarities between claim 1 and claim 8, Applicant respectfully asserts that the remarks provided above with regard to claim 1 apply also to claim 8. Thus, Applicant respectfully asserts that claim 8 is not anticipated by Shen.

Dependent Claims 11 and 12

Claims 11 and 12 depend from and incorporate all of the limitations of independent claim 8. Thus, Applicant respectfully asserts that claims 11 and 12 are allowable at least based on an allowable claim 8. Additionally, claims 11 and 12 include similar limitations to claims 9 and 10, respectively. Because of the

similarities between claims 9 and 10 and claims 11 and 12, Applicant respectfully asserts that the remarks provided above with regard to claims 9 and 10 apply also to claims 11 and 12. Therefore, Applicant respectfully asserts that claims 11 and 12 are not anticipated by Shen.

New Claims 13-16

New claims 13-16 have been added. Claims 13-16 depend from and incorporate all of the limitations of independent claims 1, 3, 4 and 8, respectively. Applicant respectfully asserts that claims 13-16 are allowable at least based on allowable claims 1, 3, 4 and 8, respectively. Additionally, claims 13-16 are allowable for further reasons, as described below.

Claims 13-16 recite that “*frequencies of the first mixing signal and the second mixing signal are not fixed and are variably dependent on the center frequency of the radio frequency signal.*” Applicant respectfully submits that Shen does not disclose the above-identified limitation of claims 13-16. Therefore, Applicant respectfully asserts that claims 13-16 are not anticipated by Shen.

CONCLUSION

Applicant respectfully requests reconsideration of the claims in view of the new claims and remarks made herein. A notice of allowance is earnestly solicited.

Respectfully submitted,
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